

Applicants: Hill et al.  
Serial No. 10/039,307  
Page 2

## IN THE SPECIFICATION

At page 9 (first full paragraph), please insert the following in lieu of same:

Other parameters that may be measured and used as feedback in a closed loop control system for the SCS include, but are not limited to, pressure-volume (PV) loops, pressure-area (PA) loops, pressure-dimension (PD) loops, diastolic and systolic pressures, estimated pulmonary artery pressure, change in cardiac pulse pressure, pre-ejection timing intervals, heart rate measures (such as, rates, intervals, and the like), autonomic indicators (such as, heart rate variability, direct neural recordings, and the like), chemical sensors (such as, catecholamines, O<sub>2</sub>, pH, CO<sub>2</sub>, and the like), or non-cardiac physiologic sensors (such as, activity, respiratory rate, time of day, and the like). Those skilled in the art will appreciate that any of a wide variety of measurable physiologic parameters may be monitored and used to implement the closed-loop adaptive controller described herein. An exemplary controller is described in greater detail in co-pending U.S. Application No. 10/035,319, entitled "Closed-Loop Neuromodulation for Prevention and Treatment of Cardiac Conditions" (~~Docket No. P10124~~) filed on even date herewith, and which is hereby incorporated by reference in its entirety.

At page 1 (lines 20-26), please insert the following in lieu of same:

U.S. Patent Application Serial Number 09/999,722~~XX/XXX,XXX~~ filed on October 26, 2001 entitled "Method and Apparatus to Minimize the Effects of a Cardiac Insult", (~~Docket Number P9669~~);

U.S. Patent Application Serial Number 09/999,723~~XX/XXX,XXX~~ filed on October 26, 2001 entitled "Method and Apparatus to Minimize the Effects of a Cardiac Insult", (~~Docket Number P9483~~); and

U.S. Patent Application Serial Number 10/035,319~~XX/XXX,XXX~~ filed on October 26, 2001 entitled "Closed-Loop Neuromodulation for Prevention and Treatment of Cardiac Conditions", (~~Docket Number P10124~~); and

Applicants: Hill et al.  
Serial No. 10/039,307  
Page 3

At page 10 (lines 28-31), please insert the following in lieu of same:

Figure 2 illustrates a block diagram of one embodiment of the controller 104. Generally, the controller 104 is comprised of one or more driver circuits 200 and receiver circuits 202. The driver circuits 200 are generally responsible for providing the stimulating signals over the lines 106 to the electrodes 108. That is, a processor 204, operating under software or hardware control, may instruct the driver circuit 200 to produce a stimulating signal having a set of pre-selected, desired parameters, such as frequency, duty cycle, duration, waveform shape, amplitude, voltage and magnitude. As noted above, driver circuits 200 may optionally include circuits 201 to generate pacing and/or high-voltage stimulation (denoted schematically in FIG. 2 as a part of driver circuit 200) to the heart on leads 109.

At page 10 (lines 28-31), please insert the following in lieu of same:

211 to a remote system 213 which may be a repository or some other remote database. Network 211 may be an intranet, internet system such as the world-wide web, or any other type of communication link.

As noted above, controller 104 may further include a drug delivery device 217~~213~~ that may

At page 14 (line 1), please insert the following in lieu of same:

enabled, no action is taken (502). Otherwise, if the therapy is on ~~(504)~~, therapy parameters may